

ADVANTAGES OF ENAMO GRIP^(07/04)



1) LOWER SURFACE PREPARATION COSTS

- * Requires a 3,500 psi power wash to clean surface
- * No white metal or near-white metal blast required
- * Can be applied over existing paint (non-glossy, solidly-bonded)
- * Single application topcoat

2) PREMIER TOPCOAT

- * Graffiti protection (clear coat only)
- * Can be applied in high-gloss, semi-gloss or satin
- * Self-leveling (no brush marks)
- * Can be factory tinted any color (minimum quantity requirements)
- * Car-like finish
- * Topcoat over Super Therm[®] provides
 - Extended longevity
 - Protection against chemicals and acids and against stains
 - Ability to color (dark colors will negate some of the advantages of Super Therm[®])
- * Topcoat over Rust Grip[®] provides
 - Extended longevity
 - Ability to color
- * Topcoat over Moist Metal Grip provides
 - Extended longevity
 - Ability to color
 - Protection against weathering and UV radiation

3) LONG-TERM SOLUTION

- * Ten to twenty year life span in the harshest environments

4) CHEMICAL AND LIGHT ACID RESISTANT

5) RUST AND CORROSION PROTECTION

6) NUMEROUS CERTIFICATIONS

- * IMO
- * ABS
- * US Coast Guard

7) TESTING

- * Numerous tests done over the last twelve years



ENAMO GRIP

TECHNICAL DATA SHEET (11/05)

DESCRIPTION:

ENAMO GRIP is a two-part polyurethane enamel that forms a uniquely hard and durable coating film. ENAMO GRIP will demonstrate unsurpassed semi-gloss retention, color retention, and chalk resistance when used in exterior applications. It is resistant to water and humidity, stains, acids, solvents, and chemicals, as well as having tremendous scuff, mar and impact resistance.

ENAMO GRIP (clear) provides exceptional graffiti resistance and protection. Krylon spray paints, magic markers, etc. can be removed completely with SPI's graffiti cleaner. ENAMO GRIP can withstand repeated incidents of graffiti removal as it is resistant to solvents and does not allow paints or oils to penetrate its surface. ENAMO GRIP has been used for over three years in Rome, Italy, to protect surfaces from graffiti. It provides tremendous cost savings by eliminating blasting and re-painting of graffiti affected surfaces on trains, buses, trams, and buildings.

The formula of resins in ENAMO GRIP will spread and self-level into a beautiful, even, and smooth glossy finish. No brush marks when applied by brush.

TYPICAL USES:

- * For architectural and maintenance situations that require the utmost in exterior durability.
- * As a topcoat for RUST GRIP and MOIST METAL GRIP.
- * As a coating system for graffiti protection.
- * As a floor covering where a tough, long-lasting finish is required. The coating has non-skid characteristics built into the formulation.
- * Anywhere that a UV-resistant topcoat is required.

APPLICATION METHODS:

ENAMO GRIP can be applied to metal, concrete, masonry, wood, and other porous surfaces. The application can be by spray, brush, or roller. For specific instructions on surface preparation, mixing and application, please refer to the SPI's application instructions for ENAMO GRIP.

PHYSICAL DATA:

- * Solids: By weight 60%/By volume 45.9%
- * Film Thickness: Metal--6 mils wet/2.7 mils dry; Concrete, masonry and wood--10 mils wet/4.6 mils dry
- * Dry Time: One hour to touch/overcoat window is three hours, or longer

- * Lead and Chromate free
- * Cures by moisture in the air and heat reactivity
- * Weight: 9.8 lbs. per gallon
- * Vehicle Type: Aliphatic polyurethane
- * Shelf Life: 1 year
- * VOC Level: 476 grams per liter
- * Impact Resistant: 160 psi front/100 psi back
- * Tinting: Can be tinted any color with a minimum of 250 gallons (lower quantities may be available with written company approval)

TESTS AND CERTIFICATIONS:

- 1) USDA Approved
- 2) Marine Approvals for salt water/maritime use:
 - *US Coast Guard
 - *ABS (American Bureau of Shipping)
 - *IMO (International Marine Organization)
- 3) Flame Spread (ASTM E84) Class A fire rating
- 4) Abrasion (ASTM D4060)

SAFETY PRECAUTIONS:

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas.

This coating is flammable. Keep away from flame, fire, or other sources of ignition.

KEEP OUT OF REACH OF CHILDREN.

For more specific safety procedures, please refer to the ENAMO GRIP Material Safety Data Sheet.

LIMITATION OF LIABILITY: The information contained in this data sheet is based upon tests that we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the products made by SPI, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use.

SPI has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPI does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.

ENAMO GRIP

SPECIFICATION SHEET (11/05)



TESTING PERFORMED:

- * ASTM E84 Flame Test: Class A fire rating
- * ASTM E84-89 Surface Burn Test: 0 flame spread/5 smoke development
- * ASTM D4060 Abrasion: Taber Model 502C - 17 wheel / 1000 gram load - Abrasion loss mg/100-12
- * Impact Resistance: Front - 160 psi / Back - 100 psi
- * SAG Test (Viscosity): 240 cps +/- 5%

FIELD TESTING PERFORMED:

- * Exceptional graffiti resistance and protection when applied as a clear topcoat
- * Self-leveling for an outstanding finish
- * Long lasting (10 to 20 years)
- * Resistant to chemical and acid spills and splashes

CHARACTERISTICS:

- * Clear color for graffiti protection
NOTE: Only clear provides graffiti protection
- * Can be factory tinted any color (minimum quantity requirements apply)
- * Can be purchased in high gloss, semi-gloss or satin finish
- * Polyurethane enamel that cures by drawing moisture from the air and by heat
- * Self-leveling
- * Dries to touch in one hour
- * Recoat window: three hours at 70F. degrees or longer
- * Fully cures in ten days
- * 60% solids by weight / 45.9% solids by volume

CERTIFICATIONS:

- * USDA (United States Department of Agriculture) for use in and around food preparation and service
- * United States Coast Guard
- * ABS (American Bureau of Shipping) approved
- * IMO (International Marine Organization) approved

SUPERIOR PRODUCTS INTERNATIONAL II, INC.
ENAMO GRIP
APPLICATION INSTRUCTIONS (11/05)



Enamo Grip is a two-part polyurethane enamel that forms a uniquely hard and durable coating film. This self-leveling coating is resistant to water, acids, solvent and impact. Enamo Grip is a one-coating system. Enamo Grip can be applied to metal, concrete, masonry and wood.

SURFACE PREPARATION

As a topcoat:

- 1) Surface must be clean and free of dirt, oil, tar, grease and film.
- 2) Surface must be completely dry.
- 3) Enamo Grip must be applied during the prescribed overcoat window of the coating to which it will be applied.

As a one-coating system (graffiti protection in clear finish only):

- 1) Power wash surface (3,500 psi) with a citrus cleaner to remove dirt, oil, tar, grease and film.
- 2) Surface must be completely dry.

MIXING

- 1) When pail is opened, mix in the curing agent.
- 2) Mix by hand for two minutes.
- 3) Let stand for thirty minutes at 70F. degrees. If the temperature is higher, the time required to blend the base and curing agent will be shortened. At 90F. degrees, begin using the coating immediately.
- 4) Begin application; however, do not apply in the heat of the day. During summer months, apply the coating in the morning or after 4:00 p.m.

POT LIFE

Eight hours at 70F. degrees; two hours at 90F. degrees, once base and curing agent have been mixed.

APPLICATION

Enamo Grip can be applied by brush, roller or spray; however, the preferred method is by brush or roller:

- 1) If application is by brush, use a soft bristle brush.
- 2) If application is by roller, use a 1/4 inch nap roller. Then use a brush to remove any trapped air bubbles, if any.
- 3) If application is by spray, use a standard airless sprayer (2,800 psi or less) with a .015-.019 tip.

NOTE: The number of coats and the thickness of each coat will be in accordance with the job specifications.

CURE TIME

- 1) One hour to touch at 70F. degrees.
- 2) Overcoating window is three hours at 70F. degrees or longer.
- 3) Fully cures in ten days.

TEMPERATURE

- 1) Apply between 40F. and 120F. degrees.
- 2) Store between 40F. and 120F. degrees according to hazmat standards indicated on MSDS.

CLEAN-UP OF EQUIPMENT

- 1) If breaks are taken, spray systems should be flushed with solvent.
- 2) After completion, spray systems should be flushed and cleaned with MEK or other comparable solvents.
- 3) After completion, brushes and rollers should be cleaned with MEK or other comparable solvents, stored and reused.

MATERIAL SAFETY DATA SHEET

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SECTION I - PRODUCT INFORMATION:

PRODUCT IDENTIFIER: ENAMO GRIP

MANUFACTURER: SUPERIOR PRODUCTS INT'L II, INC.

ADDRESS: 10835 W. 78th St., Shawnee, KS 66214

PRODUCT USE: Applied over surfaces to provide a tough, protective topcoat

EMERGENCY TELEPHONE NUMBER: 800-424-9300

SECTION II - HAZARDOUS INGREDIENTS:

HAZARDOUS INGREDIENTS	%	CAS/PIN	LD ₅₀ (Species/Route)	LC ₅₀ (Species)
n-butyl acetate	15.00	123-86-4	NAV	NAV
methylisobutyl	8.87	108-10-1	NAV	NAV
ketone toluol	9.58	108-88-3	NAV	NAV
ethyl 3-ethoxypropionate	5.57	763-69-9	NAV	NAV
ethyl acetate	12.97	141-78-6	NAV	NAV
homopolymer of HDI	13.00	28182-81-2	NAV	NAV

SECTION III - PHYSICAL DATA:

PHYSICAL STATE: LIQUID

APPEARANCE AND ODOR: Various colors, liquid, ester solvent odor

SOLUBILITY IN WATER: Insoluble

FREEZING POINT: NAP **BOILING POINT:** NAV **pH:** NAP

SPECIFIC GRAVITY: 1.0 **ODOR THRESHOLD:** NAV

COEFF. WATER/OIL: NAV **EVAPORATION RATE:** 1%

VAPOUR DENSITY (Air = 1): 1 +/- **VAPOUR PRESSURE:** NAV

SECTION IV - FIRE OR EXPLOSION HAZARD:

CONDITIONS OF FLAMMABILITY: Spraying or other activities to create finely divided droplets around open flame/sparks

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, aldehydes, fumes

AUTOIGNITION TEMP.: 350C. degrees **FLASH POINT & METHOD:** 35F. TCC

FLAMMABLE LIMITS: (Lower) 1.4% **(Upper)** NAV%

SENSITIVITY TO STATIC DISCHARGE? NAV

SENSITIVITY TO MECHANICAL IMPACT? NAV

SPECIAL PROCEDURES: Firefighters should wear full-body protection & SCBA

MEANS OF EXTINCTION: Foam, water spray (fog), dry chemical, carbon dioxide

SECTION V - REACTIVITY DATA:

CONDITIONS OF REACTIVITY: By high heat or fire

CHEMICAL INCOMPATIBILITY: Amines, strong bases, alcohols

CONDITIONS OF INSTABILITY: Stable, under normal conditions

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide, carbon monoxide, oxides of nitrogen

CORROSIVE BEHAVIOR? NO

SECTION VI - TOXICOLOGICAL PROPERTIES:

ROUTES OF ENTRY:SKIN CONTACT X EYE CONTACT X INHALATION X
SYNERGISTIC PRODUCTS **NAV**

EXPOSURE LIMITS: NAV

EFFECTS OF ACUTE EXPOSURE: Burning sensation on mucous membranes & respiratory tract. Flu-like symptoms (fever and chills).

EFFECTS OF CHRONIC EXPOSURE: Chemical asthma - chest tightness, wheezing, coughing, shortness of breath. Can cause lung damage.

MUTAGENICITY: NAV

CARCINOGENICITY: NAV

IRRITANCY: Burning sensation

TERATOGENICITY: NAV

REPRODUCTIVE TOXICITY: NAV

SENSITIZATION: Can cause future reaction to lesser amounts

SECTION VII - PREVENTIVE MEASURES:

PERSONAL PROTECTIVE EQUIPMENT: To be worn when spraying or within contained areas--Half-face respirator w/organic vapor filter, safety glasses w/shields, PVA or nitrile chemical-resistant gloves, skin protection; for all other applications, good judgement should be used.

ENGINEERING CONTROLS: Mechanical exhaust fan.

STORAGE REQUIREMENTS: Maintain temperature between 32-122F. degrees. Average shelf life is 12 months at 77F. degrees.

HANDLING PROCEDURES/EQUIPMENT: Ground all containers, use non-sparking tools.

LEAK/SPILL PROCEDURES: Ventilate the area, control spill by covering with sawdust or similar agent. Pour decontamination solution over spill, non-ionic surfactant union Carbide's Tergitol TMN-10 (20%) + water (80%)

WASTE DISPOSAL: Incineration preferred. Dispose in accordance w/federal, state and local government.

SECTION VIII - FIRST AID MEASURES:

INHALATION: Remove to fresh air. Give oxygen if required. Seek medical help.

EYES: Flush w/clear water for 15-20 minutes, occasionally lifting eyelids. See physician.

SKIN: Remove contaminated clothing. Wash affected areas & clothing w/mild soap & water.

INGESTION: Do not induce vomiting. Give 1-2 glasses milk or water. Seek medical attention.

SECTION IX - PREPARATION INFORMATION:

PREPARED BY: **Superior Products Int'l II, Inc.**

TELEPHONE NO.: **913-962-4848** DATE OF PREPARATION: **5/01/04**